

A New Species and Sub-Species of *Acanthochiton* by Edwin Ashby, F.L.S. Communicated by L. Glauert.

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***Acanthochiton* (*Notoplax*) *spongialis* n.sp. Plate I.**

Introduction.—We are indebted to Mr. W. L. May of Tasmania for the discovery of the new and interesting form of *Acanthochiton* hereafter described. Altogether he dredged four specimens in 9–10 fathoms in the D'Entrecasteaux Channel, Southern Tasmania; one of these he generously gave to me as a deep water form of *A. speciosus* H.Ad., but on examining it under a strong lens one at once noticed that its girdle spicules were very different from those of that species.

Both Mr. May and myself thought that its distinctive characters might be due to senility and the depth at which it occurs, but the recent discovery by Mr. Glauert of a juvenile specimen with similar spicules on the girdle establishes the fact that this feature is not due to senility. Mr. May has been good enough to place at my disposal all his specimens, and he fully concurs with me in considering the form under review a new species.

General appearance.—Having a great width of girdle clothed with minute, slender spicules, valves small, shield-shaped with smooth, narrow and beaked dorsal areas. Colour buffish brown.

Anterior valve.—Decorated with flat, rounded to oval, squamose granules, showing five raised ribs which are defined and surmounted with larger and more elongate but otherwise similar granules to the rest of the valve.

Posterior valve.—Mucro post-median, slope behind mucro fairly steep, ray ribs absent or ill-defined, dorsal area smooth and narrow, rest of valve decorated with flat, slightly concave squamose granules, which become larger and more elongate laterally.

Median valves.—Dorsal area narrow, beaked, smooth except for slight transverse growth grooves and slightly granulose and pinnatifid in the juvenile portion. Other areas clothed with squamose granules, which are flat to concave, oval, arranged in somewhat irregular, longitudinal to radiating rows; these granules become more elongate laterally. There is present a shallow diagonal rib surmounted and defined by slightly larger and more elongate squamose granules.

Girdle.—The girdle is very broad, occupying five times as much space as the valves in the dry specimen and of course very much more in the living. The girdle is densely clothed with minute very slender spicules, which give to it a felted appearance.

The girdle encroaches between the valves and separates them from one another.

Measurements.—The type measures 38 x 18 mm. dried and somewhat curled, and was given to me by Mr. W. L. May. All the specimens are about the same size, four in all, and must have been double the size when alive.

Habitat.—All the four known specimens were dredged by Mr. W. L. May in D'Entrecasteaux Channel, Southern Tasmania, in 9–10 fathoms. One measuring 42 x 21 mm. was taken at the same depth as the others out of the centre of a sponge, so it is evident that they inhabit sponges as does its near ally *A. speciosus*, but whether the sponge is simply a place of safety or is also a food supplier, must be left to future investigation.

Confirmatory of the foregoing, Mr. May sends me the following note:—"A young fisherman and scallop dredger, who was with me when I obtained the specimens, knew it well and said he had often seen them in sponges."

Conclusion.—This species at first sight closely resembles *A. speciosus* H.Ad., but is easily separated from that species by its minute, extremely slender, girdle spicules and the more elongate character of the squamose granules.

Acanthochiton spongialis glauerti n. subsp.

Introduction.—I am indebted to Mr. L. Glauert for the opportunity of examining and describing a little *Acanthochiton* which he took out of a sponge which he picked up on the beach at Cottesloe, Perth, W.A., in June, 1923. The discovery was particularly opportune, for I had been hesitating for some time about describing the foregoing species, of which all the four known specimens are very senile shells. There was the possibility, though somewhat remote, that the character of the girdle spicules might be due to senility.

Mr. Glauert's specimen demonstrates that the peculiar character of the girdle spicules is constant, even in the very juvenile form.

Although at first it seemed best to describe this western form as a variety of the preceding species, the careful examination of the other specimens that Mr. May has kindly placed in my hands determines me to give it sub-specific rank chiefly on the very marked character of the tail valve. One even anticipates that when more adult specimens are available that it may be found to deserve full specific rank.

General appearance.—Valves very small in proportion to the girdle, which latter is very broad and spongy looking, encroaching completely between the valves and densely clothed with minute, slender spicules. The general colour is buffish grey. The dorsal area is narrow.

Colour of valves.—The ground colour of all valves is transparent white, the upper fourth of anterior valve is bright pink, and the beak and edges of the dorsal area of other valves is also bright pink. The squamose granules of the radial ribs in the anterior valve, the diagonal ribs in median valves and the six radial ribs of the posterior valve, are generally opaque (porcelain) white but in some cases are pink.

Sculpture.—The radial ribs in the end valves and the diagonal ribs in the median valves are much raised and defined by large, elongate somewhat arched granules. There is a single rib on each side in the median, five in the anterior and six behind the mucro in the posterior valves. The rest of the sculpture consists of round, squamose granules placed in longitudinal rows—in this one respect very similar to *A. speciosus*.

Measurement.—In spirit specimen 17 x 8 mm. (W.A. Mus. No. 10399).

Differences.—Differs from *A. spongialis* Ashby (sens. str.) in the general sculpture being more rounded, in the sculpture of the ribs being opaque white and less flat, and in having six very well defined radial ribs behind the mucro in the posterior valve.

Differs from *A. speciosus* H. Ad. in the fact that the girdle spicules are minute and slender and also in the ribbing.

Differs from *A. subviridis* Torr. in having a single diagonal rib in the median valves and in the rib granules being less confluent and also in having a narrow dorsal area.

Differs from *A. costatus* Ad. and Ang. and *subviridis* Torr. in the encroachment of the girdle between the valves separating them from one another, also in having the girdle densely clothed with minute spicules.

EXPLANATION OF PLATE I.

- Fig. 1. *Acanthochiton spongialis* Ashby: Shows great width of girdle in proportion to valves. Total length 38 mm.
- Fig. A. *A. spongialis*: Anterior portion of animal showing five valves. Width of valve 4 is 17 mm.
- Fig 2. *A. spongialis glauerti* Ashby: Same magnification as Fig. 1. Total length 17 mm.

